

What is claimed is:

1. A friction stir welding method comprising:

butting two members against each other and cutting the butted portion to form a slit thereto;

inserting a filler member to said slit;

friction stir welding said filler member and said two members on both sides of said filler member using a rotary tool; and

detecting a position of a gap formed between an end portion of said filler member at an upstream side with respect to a rotating direction of said rotary tool and one of said members at the upstream side in the rotating direction, adding half a width of said filler member to said position, and setting the calculated position as the position of said rotary tool.

2. The friction stir welding method according to claim 1, wherein

the position of said gap formed between the end portion of said filler member at the upstream side and one of said members at the upstream side in the rotating direction corresponds to the position of the end portion of said filler member.

3. The friction stir welding method according to claim 2, wherein

the position of the end portion of said filler member at the upstream side is sought by carrying out a scan from the upstream side toward the downstream side.